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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,787	05/20/2002	Claudia Wiegand	MERCK 2341	5718

23599 7590 10/03/2002

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EXAMINER

OLSEN, ALLAN W

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 10/03/2002

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/031,787

Applicant(s)

WIEGAND ET AL.

Examiner

Allan W. Olsen

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

The disclosure is objected to because the specification does not include the required Brief Description of the Drawings. In addition, the specification lacks the typical format that includes section headings such as: Background of the Invention;, Brief Summary of the Invention;, and Detailed Description of the Invention;

Appropriate correction is required.

Drawings

The specification, at page 5 lines 8-12, refers to photomicrographs (Pictures 1-3). Applicant is required to furnish the micrographs or to amend the specification to remove reference to such photomicrographs.

The drawings are objected to because:

- page 1 of 4 is identified as figure 1, the following figures on pages 2-4 are not given a figure number but are identified as diagram 1 - diagram 6;
- In figure 1 the examiner believes that "D1 water" should be --DI water--;
- In figure 1 "Ebene" is perhaps best translated as --level--;

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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Claim Objections

Claim 3 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Both claims provide for the inclusion of an organic solvent that is selected from the group consisting of ethylene glycol, propylene glycol, ethanol and glycerol.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 provides for the use of the etching composition of claim 1 to etch doped silicate layers. However, the claim does not set forth any steps involved in the method/process, therefore, it is unclear what method applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 8 is rejected under 35 U.S.C. 101 because the claim recites a use, without setting forth any process steps. This results in an improper definition of a process, i.e., claim 8 is not a proper process claim under 35 U.S.C. 101.

See MPEP 2173.05(q), and, for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

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Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Pushechnik in SU 628161.

Pushechnik teaches a composition that includes HF, ethylene glycol and glycerol. Pushechnik teaches a glycerol content of 54-65 wt. % and an ethylene glycol content of 0.1 to 10 wt % (column 2, lines 15 and 16 and column 3, line 30). As such, Pushechnik teaches a glycerol: ethylene glycol ratio that ranges from 5.4: 1 to 650:1 which includes the 10: 1 ratio of instant claim 4. Pushechnik's preferred composition comprises 36 wt.% hydrofluoric acid, 54 wt % glycerol and 5 wt.% ethylene glycol. Pushechnik teaches using a concentrated hydrofluoric acid that is 70% by weight HF. Therefore, Pushechnik's preferred composition comprises 25.2% HF, 10.8 % water, 54 % glycerol and 5 % ethylene glycol. See column 3, lines 30-35 and the last column of Table 1 (Таблица 1) below columns 3 and 4.

Claims 1-3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Bohac in CH 664,978.

Bohac teaches a composition that comprises HF, water, glycerol and/or ethylene glycol ("Glycerin und/oder Ethylenglykol", page 2, left column, line 37-38). Bohac teaches an HF concentration of 1-80 % (page 2, left column, lines 26-28). Bohac teaches that water should constitute no more than 5 % of the composition (page 2, left column, lines 10-16).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pushechnik.

Pushechnik teaches the limitations of independent claim 1 as noted above.

Pushechnik does not teach a glycerol: ethylene glycol ratio between 5: 1 and 1:5.

Pushechnik does not teach that the composition comprises a mixture of high purity components.

It would have been obvious to one skilled in the art to use a glycerol: ethylene glycol ratio of 5:1 because Pushechnik teaches a ratio of 5.4 or 5.5 :1, which is nearly equal to the claimed ratio and it is obvious to make adjustments in the composition so that the composition functions in a manner that suit one present needs.

It would be obvious to use high purity components so that the etching solution does not become a source of contamination.

Claims 4, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bohac.

Bohac teaches the limitations of independent claim 1 as noted above.

Bohac does not teach a glycerol: ethylene glycol ratio between 5: 1 and 1:5.

Bohac does not teach that the composition comprises a mixture of high purity components.

It would have been obvious to one skilled in the art to use a glycerol: ethylene glycol ratio of 5:1 for the following reasons. Bohac teaches that the HF solution can include glycerol, or ethylene glycol, or glycerol and ethylene glycol. For a composition including both glycerol and ethylene glycol, Bohac provides no guidance with regard to the relative amounts of these two components. Therefore, as each component can be used independently of the other, it would be obvious when using a mixture of these two components that any ratio whatsoever should prove satisfactory, furthermore, it would be obvious, as a first choice, to select a 1:1 ratio.

It would be obvious to use high purity components so that the etching solution does not become a source of contamination.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patents 3,642,549 (Couture et al.), 4,569,722 (Maury et al.), and 6,316,370 (Mercaldi et al.) each provides teachings such that they could be applied in a 102 rejection against at least claim 1. However, to avoid presenting an undue multiplicity of rejections, these references are not, at this time, being applied. The same is true of each of the British and Japanese references that were cited by applicant in an information disclosure statement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Olsen whose telephone number is 703-306-9075. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Mills, can be reached on 703-308-1633.

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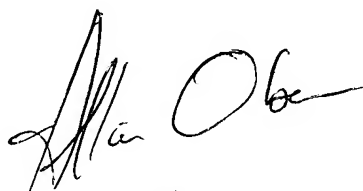
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The examiner's Right-Fax (direct to desktop) phone number is 703-872-9684. Alternatively, the general fax numbers for TC1700 are 703-872-9310 (non-after finals) and 703-872-9311(after-final).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Allan Olsen, Ph.D.
September 14, 2002



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